

June 2, 2000

OPEN MEMORANDUM

To: FERC Staff
From: Ron Rattey, OMTR

**"What is work without FUN? We need to question what we do."
Dick O'Neill, 2000**

Once again, it seems that FERC has caved in to the utility industry (or some segment) with the effect of making us (FERC staff) impotent in our ability to monitor, foster, and ensure competitive electric power markets. More significantly, this action (or inaction) in regards to obtaining access to supply and demand data through NERC¹ is taken at a time when lots of evidence supports the need for FERC to become more pro-active in overseeing the transition from cost-of-service regulated markets to light-handed or unregulated markets where competitive forces are supposed to ensure just and reasonable prices.

Some History on FERC and Information.

First, the quarterly power marketer filings. During the 1990s, as the Commission relaxed and waived various of its cost-of-service related regulations for utilities, power producers and power marketers, it imposed quarterly information filing requirements on the purchase and sale transactions at unregulated prices. However, though Commission orders specified that transaction-specific data was required, these directions were ignored and FERC staff took a permissive approach to whatever was filed. As a result, the filings grew more and more diverse and provided less and less information. A filing requirement that could have allowed other interested parties as well as FERC staff to monitor electric prices, as cost-based restraints were eliminated, now yields a bucket of not very useful data. As FERC staff has discussed redressing this failing over the last few years, a major barrier arose in the form of a need to justify imposing this burden on industry players now (after years of not enforcing the regulations).² It appears unlikely that any action to get good transaction data in the quarterly filing requirements will happen soon.

¹ The North American Electric Reliability Council is the national organization with responsibility for maintaining reliability of the electric supply for North America. It is a quasi-voluntary organization of ten regional reliability councils that depends on reciprocity and mutual self-interest. I use the term quasi because, while entities can and do violate or bend NERC's operating and planning rules, no electric market entity or group can reasonably separate from the transmission grid and operate independent of these councils. It is important to note that NERC is in the process of reinventing itself as a mandatory non-governmental organization under various legislative proposals that would also place them under FERC's oversight.

² Probably because it imposed the requirement on a case-by-case basis, the FERC was able to justify to itself that it did not have to get OMB approval in the first place.

Second, the OASIS transmission information system. When the Commission took the next logical step and ordered open transmission access in its Order No. 888, it also required transmission owners to post information about prices and availability of their transmission capacity and services on the Internet—on what has evolved into the Open Access Same Time Information System (OASIS) system. Rather than try to dictate the specifics for posting the information and setting up the mechanics for online buying and selling of transmission services, the Commission chose to let industry stakeholders get together, work out the details, and submit them to FERC for approval. This part makes sense. However, if one of the goals was to make access to the voluminous amounts of data on the OASIS systems easy, that goal was missed. The situation today is that, save for a few OASIS sites, it is nearly impossible for anyone to use OASIS to obtain pertinent data for overseeing transmission market behavior and assessing how well the markets are working.

Apropos to OASIS data, Dr. Richard Tabors of Tabors Caramanis & Associates recently made a presentation to FERC staff on some work his firm performed that involved the collection and analysis of OASIS and other data.³ While the study was more broadly focused on various transmission market abuses and found substantial evidence that transmission markets are not working well, of significance here is that the OASIS data he examined were "incomplete and impenetrable." As a result, he claimed that many transmission market abuses are almost impossible to detect and police.⁴

Now, the event that triggered this memo—FERC's trip to NERC on May 25. Last Thursday, thirteen FERC staff visited NERC (Princeton, New Jersey) for the ostensible purpose of asking NERC for access to real data on physical electric generation and transmission supply and demand.⁵ I have been told that, as a result of the meeting, FERC staff will have no greater access to this data than it has had in the past. If some event occurs in electric markets, e.g., price spikes of 100-300+ times normal prices as occurred during the summers of 1998 and 1999, FERC may request that NERC request its members to compile and submit data pertinent to day or days surrounding the event. Though FERC staff offered to sign a confidentiality agreement, it was not enough to get over NERC's concern that its members would not want FERC staff to have

³ Although Americans for Affordable Energy—a lobbying group funded by some power marketers (e.g., Enron) and independent power producers (e.g., Electric Power Supply Association, EPSA)—paid for Tabors work, adequate supporting data was offered to show that the findings are not unreasonable and warrant further investigation by FERC.

⁴ A paper by Tabors and Rao entitled "Transmission Markets: Stretching the Rules for Fun and Profit," which summarizes the results of this work is attached (Att 1). If you are interested in the slides from Tabors' presentation to staff—76 pages of juicy facts and findings, check out the second attachment (Att 2).

⁵ Although I believe I know as much or more about NERC's data systems than anyone else at the Commission and, for the past two years, I have been the chief advocate for getting access to this data, I was not invited on the trip to NERC or consulted as a SME for input and perspective in preparation for the trip.

access to the data. As NERC indicated last August during a visit by a smaller and less senior FERC contingent, *data* is not *information* and FERC should let the experts at NERC sift through and analyze the *data* and provide *information* to FERC.⁶ After all, FERC does not have the staff or capabilities to evaluate the data to which NERC has access. And, by implication, FERC should not develop such capabilities.

I was on the Midwest Price Spike team of summer 1998 and the interim Electric Markets Monitoring (iEMM) team of summer 1999. Based on those experiences, my understanding of NERC, and common sense, I unequivocally assert that NERC's response to FERC's request for access to data is totally inadequate and should be rejected.

Some background on NERC.

The summers of 1998 and 1999. To assess the price spikes of June 25-26, 1998, NERC was able to get FERC staff, in August, incomplete and widely variable responses to a data request that was negotiated down from one to two months of data to less than one week's worth.⁷ And, when attempts were made (by me) to get clarifications and more complete responses from NERC, NERC staff called senior people at FERC to complain about harassment. Since by that time the deadline for the FERC staff report was near, efforts to get the requested information were stopped.

In contrast (hardly), FERC staff didn't even request data from NERC pertinent to the price spike events of July 29-30, 1999 until late fall; a bureaucracy slows down when signals from above are ambiguous. As a result, pertinent supply and demand data for the last week in July didn't arrive at FERC until December 1999. The team spent six months looking at price data for the summer of 1999 because that was the only real data we had access to. Then we got a bunch of data from the regional reliability councils and utilities, most in hard copy format, in response to our NERC data request, and were supposed to use it to piece together an explanation for the events of late July. That was unlikely. Due to the data being six months old and was not consistent across regions, and I was the sole analyst from the iEMM team with time to work on the project, it was impossible to effectively use the data and glean anything definitive about the causes of the July 1999 price spikes.

More Contrasts between NERC and FERC (or Who's on Top?)

First Story. To repeat myself, NERC and each of the regional reliability councils are quasi-voluntary organizations. I say *quasi* because, while member entities can and have violated

⁶ In other words, let NERC put its spin on the data. For other views on how much faith should be placed in NERC and the regional councils' writeups of the summer forecasts, see DOE Secretary Richardson's remarks of May 23, the *Energy Daily* writeup of May 25, and RDI's *Energy Insight* for May 26, 2000, "A Fragile System Faces Another Uncertain Summer."

⁷ The week was the clearly aberrant week ending June 25-26. To my view, it defies logic to suggest that FERC staff or anyone could understand in any definitive way how the electric markets could produce price spikes based on data limited to the days surrounding such an event.

or bent various NERC and regional operating and planning rules, they cannot reasonably separate from the electric transmission grid and operate totally independent of the councils. In contrast, FERC has the backing of laws to enforce its rules and regulations. Over the last few years, NERC has been involved in a transformation process not dissimilar to the FERC First process at FERC. Similar to FERC, NERC has been opening up to and involving more and more industry stakeholders in its decision-making. Similar to FERC's rulemaking process, NERC recently initiated an evolving open process under which changes are made to their operating and planning policies.

In contrast to FERC, NERC has developed compliance programs for its plethora of operating and planning policies in order to ascertain the extent to which those policies are being followed. Many of these compliance programs involve the collection and review of data from many entities.⁸ It does this without any third party review of the costs and benefits of the burdens it places on its members. FERC, on the other hand, is hampered by the Office of Management and Budget's restrictions on burdening industry. FERC has no ongoing and functioning compliance programs, to my knowledge, for any of its most important competition-enhancing rules. The Commission appears to have taken the tact (consciously or unconsciously) that industry should police itself. But, as revealed in countless formal and informal complaints, the burden of getting supporting data is horrendous and exceedingly costly (financially and otherwise) to complainants. If FERC staff has no ability to ferret out wrongdoing, except in the most egregious cases and with substantial resources diverted from other work, how can FERC expect market participants to undertake the effort.⁹ This latter point is especially troublesome where the complainants know that historically FERC has done little more than slap wrists and say "don't do that again!"

Second Story. This is a great story, one that I've told in meetings with senior management—where the response from one senior staff obviously bored and irritated was "now what's your point?"

On June 25, 1998, the day when electric prices in the Midwest hit a confirmed high of \$7500/MWh (compared to the average daily summer prices in the range of \$30/MWh during 1997), another lesser known event occurred.

Early in the morning of June 25, 1998, a series of events, initiated by a severe lightning storm in Minnesota, caused a system disturbance affecting the entire MAPP [Reliability]

⁸ For the summer of 1999, NERC audited inadvertent interchange activity between Eastern Interconnection control areas for a total of 10 hours over four different days. It was through this audit that Cinergy was discovered to be pulling large quantities of power off others' systems for its own use. As a result of the findings from this audit, NERC is now collecting such data for all hours from all control areas.

⁹ Even when substantive evidence results in a staff investigation, as regards AEP's behavior during the spring/summer of 1998, disagreements among staff on the significance of highly technical evidence and the distinction between the letter and spirit of the Commission's rules and policies can cause investigations to be closed.

Region and the Northwestern Ontario Hydro (OH) system of the NPCC [Reliability Region]. Northern MAPP separated from the Eastern Interconnection, forming two islands, which caused the blackout of the Northwestern OH system. In the MAPP Region, more than 60 transmission lines tripped, over 4,000 MW of generation was lost, and more than 39,000 customers were affected by the loss of over 300 MW of load. In the Northwestern OH system, all of the tie lines tripped, about 270 MW of generation was lost, and more than 113,000 customers were affected by the loss of more than 650 MW of load. System restoration in MAPP was completed within 19 hours after the disturbance began, and within four hours in OH. [Source: NERC Operating Committee Meeting Agenda for March 16-17, 1999]

Note that the majority of the impact on customers was in the middle of the night and on Ontario Hydro's system where system restoration was completed in four hours.

Within a matter of days after the MAPP/NPCC events on June 25th, NERC security coordinators and affected control area operators submitted (uploaded, faxed, or e-mailed) all available logs and technical data to their regional reliability councils. Using this information, MAPP generated a *2-page* Power System Emergency Report (form OE-417R) which was submitted to DOE's Office of Emergency Planning and to NERC (per Appendix 5F of NERC Policy 5) on *July 1, 1998*. MAPP then proceeded to form a study team which produced a *9-page* Preliminary Report on the June 25th disturbances to the MAPP reliability council on *July 22, 1998*. The team went on to produce a *128-page* detailed Final Report which was approved by MAPP's Operating Review Subcommittee on *September 2, 1998*. Significantly, the list of contributors to this Final Report numbers 56 people. Finally, the last reference to a NERC committee meeting discussion of the June 25, 1998 event is in the minutes of NERC's Security Committee meeting of *July 13-14, 1999* where "Jerry Haage reported that the cause of the June 25, 1998 separation of a portion of the MAPP Region from the Eastern Interconnection has been resolved."

What's my point? A middle of the night reliability event that affected a relatively small number of people got MAPP/NPCC and NERC to produce a quick and thorough analysis by more than 50 people followed by a year-long discussion and review by third parties. In contrast, the June 25th price spikes which I believe had more widespread and much greater impacts (direct and indirect) got FERC to assign seven "interdisciplinary" staff to the task of collecting data from various sources and writing a report on the causes of the pricing "abnormalities" during June 1998.¹⁰

Why am I concerned? Let me tell you about the summer of 1999.¹¹ Some of the findings from the review of electric markets during summer 1999 include:¹²

¹⁰ This report is still available on FERC's web site.

¹¹ To my knowledge, the iEMM team (summer 1999 electric market monitoring team) has received no requests from senior staff for a briefing on what we found in our market monitoring efforts last summer. That's not quite true. About a month ago, I was asked to be hone down my findings and presentation material for a 20 minute talk to senior staff at one of their regular Monday morning meetings—when their agenda is light. I'm working on it. The list of findings in

Summer 1999 Wholesale Electricity Prices

- ❑ Wholesale electric prices rose dramatically from summer 1997 to summer 1998 and rose to a lesser extent in summer 1999.
 - ✓ Median wholesale daily prices increased 50-80 percent in all regions of the U.S. from 1997 to 1999.
 - ✓ Volume-weighted mean wholesale daily prices increased 60-275 percent in the east and 6-53 percent in the west from 1997 to 1999.

- ❑ Wholesale electric prices were more volatile during the summers of 1998 and 1999 than during summer 1997.
 - ✓ Wholesale electricity price spikes were more frequent and more widespread during summer 1999 than during summer 1998.
 - ✓ While the highest confirmed hourly electricity price in 1998 was \$7,500/MWh—compare to average summer electricity prices in 1997 of about \$30/MWh, we have evidence of multiple transactions during the summer of 1999 with prices between \$8,000-9,502/MWh.
 - ✓ In some regions, the volatility of summer prices, as measured by standard deviation, increased dramatically from 1997 to 1999.

- ❑ On days when prices spiked during summer 1999, wholesale prices in contiguous markets diverged significantly—not something one would expect under competitive supply and demand conditions.

- ❑ Except for the CAISO, energy prices in the NE and PJM ISO/pools were higher and more volatile during summer 1999 than during summer 1998.
 - ✓ PJM energy market prices were higher and more volatile than the NE ISO/pool energy market prices during both the summers of 1998 and 1999.
 - ✓ The uncapped but revised energy prices in NE were lower and less volatile than the capped but *unrevised* energy prices in PJM during the summer of 1999.

the body of this memo are my own. While they have been circulated to other team members with few if any differences of opinion, I totally absolve them of any responsibility for my summary judgements. I apologize for the terseness of some of the points; they are meant to go with a slide presentation which, unfortunately, is not currently in a form amenable to attaching to this memo.

¹² Obviously, these facts and findings did not make it into FERC's recent State of the Market Report.

Summer of 1999 - Price Impacts

- Staff could not make any definitive findings about the allocation of the higher wholesale prices between consumers and shareholders. Survey data collected by OFAO staff for six utilities was incomplete and gave ambiguous results.
 - ✓ Some fuels/purchased power adjustment clauses have been eliminated but we don't know how many are still effective even for wholesale customers.
 - ✓ At least two utilities flowed through 100 percent of the 1998 price spikes to their customers.
- In addition, some utilities and power marketers later indicated they incurred losses in electricity trading during summer 1999.
- The Department of Energy reports that retail electric prices fell continuously throughout the past three years; an apparent conundrum when related to the above wholesale prices which I cannot yet fully explain.

Summer of 1999 - Behind the Prices

- Weather, generation and transmission capacity shortages, and inelastic demand undoubtedly influenced wholesale prices during summer 1999 but regulatory policies (of FERC and NERC) and the behavior of specific utilities also had impacts on prices.
- Weather conditions may explain some portion of the high prices in 1999; some regions of the U.S. experienced well above normal temperatures during some portion of summer 1999.
- Staff is unable to evaluate the role of generation outages (and withholding) due to lack of data and analytical problems.
- Transmission constraints and related NERC TLR policies (approved by FERC) had adverse impacts on wholesale electric prices during the summer of 1999. Market traders faced significant problems in obtaining current and accurate information about the status of transmission path availabilities.
 - ✓ The number of TLR events (level 2 and above) during summer 1999 was more than 50 percent higher than during summer 1998: 236 v. 145.
 - ✓ The location of TLR events in summer 1999 varied significantly from summer 1998.
 - ✓ No single Internet web site had accurate and complete information on active TLRs during summer 1999.
 - ✓ NERC's after-the-fact TLR event logs do not include all TLRs called.
 - ✓ Up to 16 TLR events (level 2 and above) occurred on a single day during summer 1999.
 - ✓ TLR events on July 30, 1999 had significant impacts on trading options available to market players.
 - ✓ Some TLRs called during summer 1999 were questionable.
- Cinergy was not the only utility that "leaned" on the system during the summer of 1999. While Cinergy was clearly the most egregious utility to take advantage of the NERC and regional "buddy system" rules, at least 10 others were asked by NERC and the regional councils to explain their behavior during the audit hours.
- Market design flaws and market power abuses were identified during summer 1999 in all operating ISOs—CAISO, PJM and NE.

Summer 2000?

- Current prices in both forward and futures markets suggest that market players expect another tumultuous summer for wholesale electric prices in the Eastern Interconnect.

Why is access to NERC's supply and demand data so important? In my simplistic view, under cost of service regulation, FERC needs utility costs and revenues to set and evaluate just and reasonable rates. Understanding supply and demand conditions are almost irrelevant to such rate-making. On the other hand, the only way to evaluate whether market-based prices are just and reasonable is with supply and demand data. It is impossible to assess whether players have market power and are abusing it by, e.g., economically or physically withholding generation or transmission capacity, without information on generation and transmission availability in real or near real time. Without quantitative data on supply and demand, it is impossible to ascertain whether market power abuses are occurring. Without factual data on transmission systems, it is impossible to tell whether transmission owners are exercising market power or discriminating in favor of affiliates or against their competitors.

And the only ways to get this information is through access to the electronic information sharing systems set up by NERC and the regional councils or through the unlikely route of redundant data requests or reporting requirements imposed on all of the individual entities in the marketplace buying, selling or transporting electrons. In requesting this data, FERC is imposing virtually no monetary costs on industry members; we would simply be accessing the data they are distributing to each other. No extra burdens would be on them other than making them aware that if they behave badly or unfairly, we might catch them.

What do the ISOs do? The data we are asking for is less than or the same as that available to the market monitoring units of the various ISOs. I doubt that they could evaluate market design or market abuse problems without such data. Now consider the perspective of utilities around the country as they are evaluating whether to join an RTO or ISO. The benefit: FERC will like you. The costs: you will have to give up your control over strategic transmission and generation assets and you will be subject to much close scrutiny of your behavior because detailed information on your bidding, your generation facilities, and your demand forecasts will be collected, archived and analyzed to the degree that the market monitoring unit chooses. And much of the information will be made public, on a current basis or after some minimal time period. The current situation around the country is that if a utility is in an ISO, its behavior is closely monitored. Outside of the ISOs—i.e., in most of the Eastern and Western Interconnections, no one is watching. Now do you wonder why utilities are not jumping to join an RTO. The longer they can push off an RTO decision, the longer they can operate without scrutiny.

Who has access to the precious NERC data? You might think that, given NERC's reluctance to give FERC access, only a few people with top secret clearances have access. Not! As of mid-May, 76 utilities, regional councils, and other entities (including Open Access Technology International, Inc?) have signed NERC's Data Confidentiality Agreement, a

requirement to get access to the "Electric System Security Data."¹ Presumably, multiple personnel of these entities—anyone having real-time transmission operations duties—has access to the data. But FERC staff cannot have read-only access?

Finally, guess what happens to the Electric System Security Data after the fact? I don't know. But I do know that, according to NERC operating procedures,

There are no requirements on any control area or Region to retain the data that they make available on the Interregional Security Network. Therefore, if the recipient of the data wishes to access historical data, it shall establish a method for saving the data it obtains from the Network. (Appendix 4B, Section A.3.)

Further, I know that the confidentiality agreement says,

Security Data eight days or older is exempt from the access and disclosure restrictions of this Agreement. Forecast Security data is exempt from the access and disclosure restrictions of this Agreement beginning eight days after the forecast period has passed. (Appendix 4B, Section B.3.4)

Given the concerns that NERC has about giving FERC access to this data on a real-time basis, why not give FERC access after eight days when the signatories to the Confidentiality Agreement are allowed to pass this information along to their merchant marketing arms which most have. The team that visited NERC during the summer of 1999 asked about these provisions. NERC staff said they would get back to us. I've been waiting. My understanding is that this topic did not come up last week.

Concluding remarks

I'm afraid FERC has become an agency where public relations takes precedence over the public interest. While this may have always been the case, I've been with FERC 25 years and I think it has gotten out of hand over the last decade or so. I get upset when I hear stories where politics is the primary guide to FERC-work. And its amazing how, at each level of management, staff are anxious to put the spin they think the Chairman wants or that they think will get three votes. And its amazing how varied these views can be. I guess that's what it means for FERC to be an "independent" agency.

¹ For your enjoyment, I have also attached Appendix 4B from NERC's Operating Manual (Att 3), which includes a list of the information available in real-time and the confidentiality agreement. While NERC takes the tack that all FERC wants is access to this real-time system, where information is updated at least every ten minutes. Access to this information would be very useful—and I think FERC should push to get real-time access to it—but there are other NERC and regional council information systems with useful information. For each of the last two summers, I have gotten some of the daily reports (day-before, day-of, and after-the fact) of the regional councils which have utility-specific forecast and actual supply and demand conditions for peak daily hours. I suspect that the discussion at NERC never focused on the other data systems with data useful to FERC's mission.

Since I can't seem to get anything but "get real," "accept the way things are," "go with the flow," and "things are going to change" from those above me in FERC's organization, I've decided to make the bold (and irreverent) step of asking other FERC staff for a reality check. Am I crazy to think FERC could get serious about looking for market failures and abuses and "kicking some butt" where needed?

I don't want FERC to return to cost of service regulation only that it really foster and ensure effective competitive markets. I don't think that electric markets are ever going to work very well as long as the players have no faith that some degree of fair play exists. I am concerned about electric markets and frustrated in my efforts to get my higher ups to listen to me or, better yet, hear me.² Perhaps the Commission has chosen to let the markets run wild and unrestrained—regardless of the adverse (in my view) short-term, and potentially long-term, consequences—because it believes (a) we *should* do nothing or (b) we *can't* do anything. Maybe the Commission is unaware of the market facts or believes them less significant than I do. I have not seen any Commission order to that effect. I believe we/FERC can and should do something. Do you?

² I think I'm writing this memo out of frustration. There, of course, may be other reasons. I am not intending to point my finger at anyone in particular; I think the problems are more endemic to the culture and focus of FERC. I don't think that I'm incompetent and unable to understand the way things are supposed to be (though if I were I'd be the last to know it). My performance ratings have not mentioned anything of the sort. I hope that my supervisors have not been deceiving me all these years.